

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: STREETWORKS

Report Number: P509960

Luminaire Tested: **VERD-M-CA3-170-760-U-T4-HSS**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P509960  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VERD-M-CA3-170-760-U-T4-HSS  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 5700K, 1060mA LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21902 lumens  
Efficiency: N/A  
Efficacy: 126.7 lumens/watt  
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G5

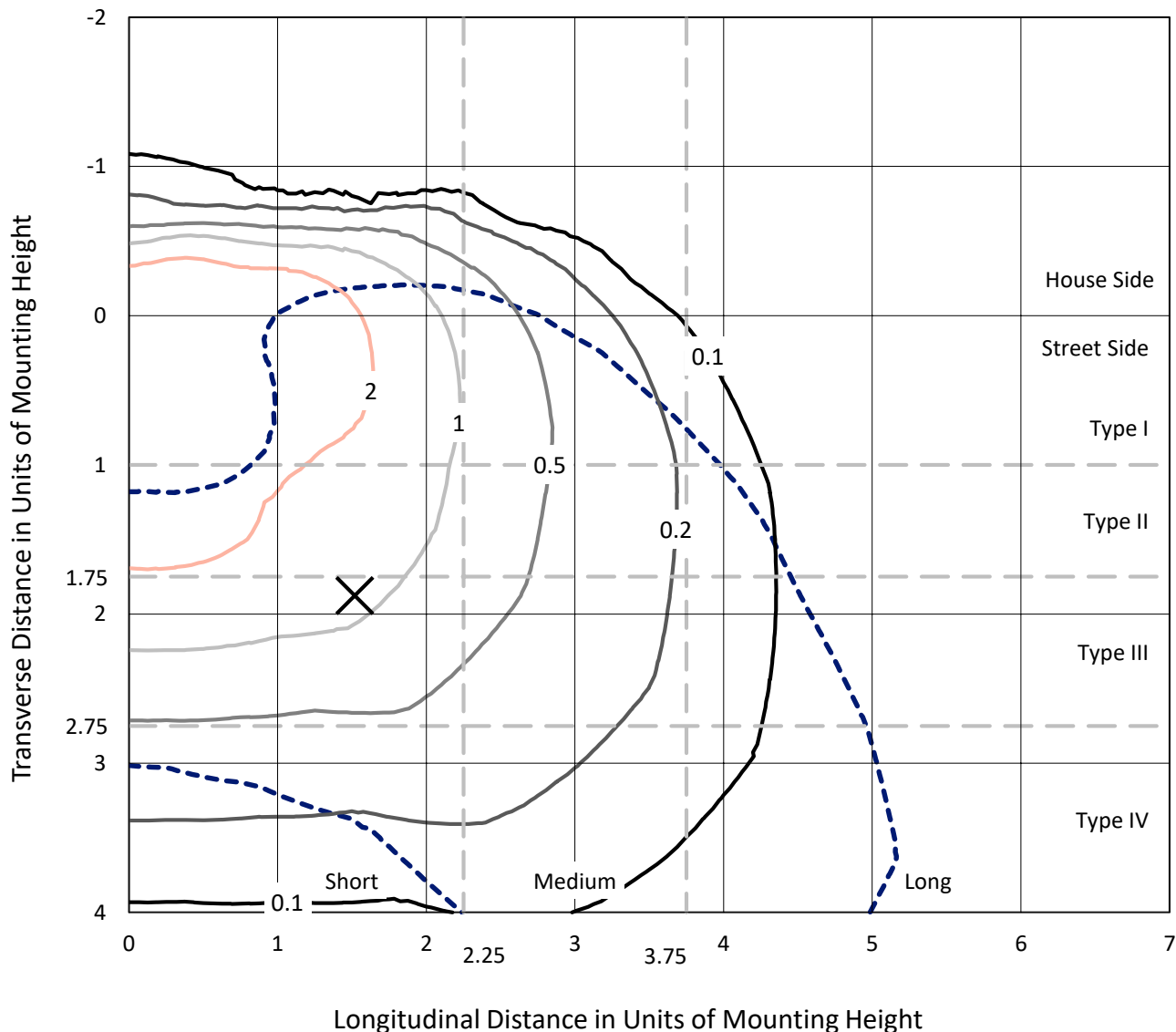
Input Watts (W): 172.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

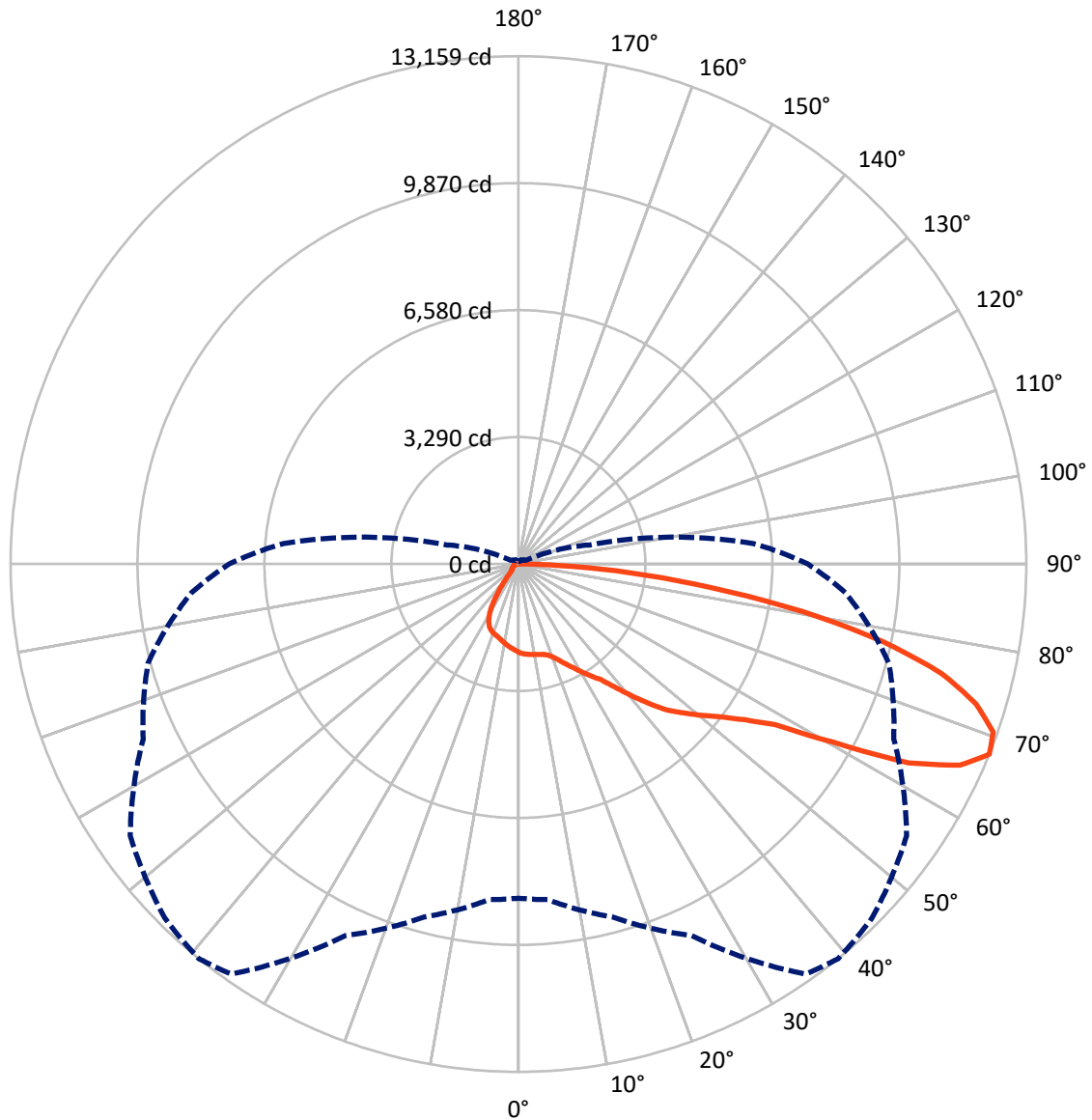
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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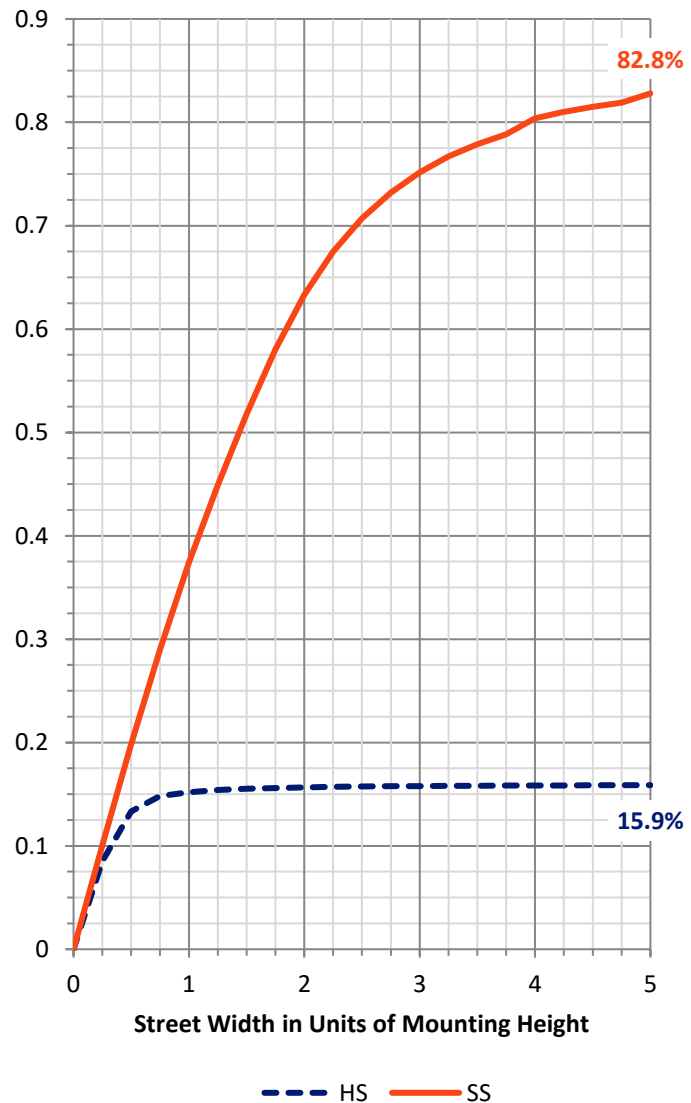
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3516.9   | 0.0    | 3516.9  |
|                    | % Fixture | 16.1     | 0.0    | 16.1    |
| <b>Street Side</b> | Lumens    | 18385.1  | 0.0    | 18385.1 |
|                    | % Fixture | 83.9     | 0.0    | 83.9    |
| <b>Total</b>       | Lumens    | 21902.0  | 0.0    | 21902.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 216.5   | 1.0       |
| 10°-20°   | 644.4   | 2.9       |
| 20°-30°   | 1141.7  | 5.2       |
| 30°-40°   | 1828.6  | 8.3       |
| 40°-50°   | 2933.4  | 13.4      |
| 50°-60°   | 4287.8  | 19.6      |
| 60°-70°   | 5713.7  | 26.1      |
| 70°-80°   | 4287.6  | 19.6      |
| 80°-90°   | 848.3   | 3.9       |
| 90°-100°  | 0.0     | 0.0       |
| 100°-110° | 0.0     | 0.0       |
| 110°-120° | 0.0     | 0.0       |
| 120°-130° | 0.0     | 0.0       |
| 130°-140° | 0.0     | 0.0       |
| 140°-150° | 0.0     | 0.0       |
| 150°-160° | 0.0     | 0.0       |
| 160°-170° | 0.0     | 0.0       |
| 170°-180° | 0.0     | 0.0       |
| 0°-90°    | 21902.0 | 100.0     |
| 0°-180°   | 21902.0 | 100.0     |







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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 39°     | 45°     | 55°     | 65°     | 75°    | 85°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 0°    | 2293.4  | 2293.4  | 2293.4  | 2293.4  | 2293.4  | 2293.4  | 2293.4  | 2293.4  | 2293.4  | 2293.4 | 2293.4 |
| 2.5°  | 2295.6  | 2326.4  | 2326.4  | 2317.6  | 2323.1  | 2327.5  | 2294.5  | 2303.3  | 2300.0  | 2298.9 | 2305.5 |
| 5°    | 2313.2  | 2347.3  | 2345.1  | 2334.1  | 2338.5  | 2347.3  | 2316.5  | 2329.7  | 2325.3  | 2314.3 | 2316.5 |
| 7.5°  | 2313.2  | 2341.8  | 2348.4  | 2336.3  | 2357.2  | 2368.2  | 2335.2  | 2347.3  | 2352.8  | 2345.1 | 2337.4 |
| 10°   | 2304.4  | 2329.7  | 2338.5  | 2336.3  | 2363.8  | 2381.4  | 2349.5  | 2383.6  | 2388.0  | 2388.0 | 2375.9 |
| 12.5° | 2301.1  | 2329.7  | 2341.8  | 2351.7  | 2383.6  | 2402.3  | 2383.6  | 2416.6  | 2438.6  | 2437.5 | 2429.8 |
| 15°   | 2303.3  | 2335.2  | 2353.9  | 2370.4  | 2404.5  | 2427.6  | 2419.9  | 2470.5  | 2497.0  | 2504.7 | 2504.7 |
| 17.5° | 2358.3  | 2396.8  | 2405.6  | 2423.2  | 2446.3  | 2481.6  | 2471.6  | 2536.6  | 2578.4  | 2591.6 | 2610.3 |
| 20°   | 2512.4  | 2542.1  | 2553.1  | 2544.3  | 2554.2  | 2576.2  | 2556.4  | 2619.1  | 2681.8  | 2717.1 | 2747.9 |
| 22.5° | 2709.3  | 2731.4  | 2721.5  | 2712.7  | 2707.1  | 2712.7  | 2688.4  | 2730.3  | 2800.7  | 2851.3 | 2904.1 |
| 25°   | 2859.0  | 2907.4  | 2899.7  | 2875.5  | 2867.8  | 2874.4  | 2843.6  | 2895.3  | 2960.3  | 3013.1 | 3092.3 |
| 27.5° | 3040.6  | 3070.3  | 3049.4  | 3040.6  | 3046.1  | 3045.0  | 3026.3  | 3075.8  | 3135.2  | 3201.3 | 3317.9 |
| 30°   | 3237.6  | 3262.9  | 3242.0  | 3233.2  | 3243.1  | 3249.7  | 3228.8  | 3315.7  | 3378.4  | 3450.0 | 3600.7 |
| 32.5° | 3561.1  | 3621.6  | 3564.4  | 3450.0  | 3452.2  | 3462.1  | 3464.3  | 3580.9  | 3695.4  | 3751.5 | 3950.7 |
| 35°   | 4022.2  | 4070.6  | 3994.7  | 3856.0  | 3683.3  | 3676.7  | 3694.3  | 3868.1  | 4098.1  | 4353.4 | 4586.7 |
| 37.5° | 4452.5  | 4522.9  | 4454.7  | 4292.9  | 4082.7  | 4032.1  | 3940.8  | 4147.7  | 4509.7  | 5058.8 | 5349.4 |
| 40°   | 4968.6  | 5021.4  | 4886.1  | 4745.2  | 4535.0  | 4463.5  | 4317.1  | 4449.2  | 4945.5  | 5795.1 | 5995.3 |
| 42.5° | 5383.5  | 5415.4  | 5303.2  | 5155.7  | 4973.0  | 4919.1  | 4768.3  | 4780.4  | 5411.0  | 6439.9 | 6568.7 |
| 45°   | 5767.5  | 5801.7  | 5709.2  | 5583.8  | 5468.2  | 5403.3  | 5293.2  | 5352.7  | 5956.8  | 7120.0 | 7041.9 |
| 47.5° | 6059.2  | 6093.3  | 6019.6  | 5930.4  | 5810.5  | 5766.4  | 5768.6  | 5982.1  | 6624.8  | 7663.7 | 7466.7 |
| 50°   | 6536.8  | 6523.6  | 6331.0  | 6234.1  | 6140.6  | 6163.7  | 6187.9  | 6491.7  | 7298.3  | 8130.3 | 7859.5 |
| 52.5° | 7369.8  | 7304.9  | 6907.6  | 6654.5  | 6539.0  | 6578.6  | 6618.2  | 7022.1  | 8063.1  | 8556.1 | 8161.1 |
| 55°   | 8311.8  | 8245.8  | 7908.0  | 7366.5  | 7060.6  | 7124.4  | 7090.3  | 7547.0  | 8705.8  | 8965.5 | 8409.8 |
| 57.5° | 9011.7  | 9120.7  | 8991.9  | 8697.0  | 7931.1  | 7847.4  | 7771.5  | 8077.4  | 9225.2  | 9374.9 | 8648.6 |
| 60°   | 9620.3  | 9772.1  | 10002.1 | 9921.8  | 9596.1  | 9378.2  | 8681.6  | 8697.0  | 9724.8  | 9658.8 | 8743.2 |
| 62.5° | 10214.5 | 10303.7 | 10697.6 | 10784.6 | 11188.4 | 11344.7 | 10637.1 | 9498.1  | 10207.9 | 9855.8 | 8807.0 |
| 65°   | 9620.3  | 9734.7  | 10420.3 | 11053.1 | 12358.2 | 12567.3 | 12318.6 | 10948.5 | 10563.4 | 9972.4 | 8733.3 |
| 67.5° | 8659.6  | 8728.9  | 9469.5  | 10620.6 | 12970.1 | 13159.4 | 12965.7 | 12280.1 | 10729.6 | 9937.2 | 8504.4 |
| 70°   | 7403.9  | 7512.9  | 8240.3  | 9783.2  | 12948.1 | 13049.3 | 12881.0 | 12440.8 | 10666.8 | 9734.7 | 7926.7 |
| 72.5° | 6123.0  | 6184.6  | 6800.9  | 8340.4  | 12315.3 | 12400.1 | 12310.9 | 12194.3 | 10455.5 | 9170.2 | 6816.3 |
| 75°   | 4602.2  | 4615.4  | 5247.0  | 6586.3  | 10889.1 | 11331.5 | 11440.5 | 11769.5 | 9646.7  | 7860.6 | 5041.2 |
| 77.5° | 3085.7  | 3216.7  | 3823.0  | 5033.5  | 8939.1  | 9646.7  | 10162.8 | 10402.7 | 8059.8  | 5866.6 | 2680.7 |
| 80°   | 1656.2  | 1689.2  | 2342.9  | 3572.1  | 6793.2  | 7470.0  | 7959.7  | 7964.1  | 5636.6  | 2906.3 | 598.7  |
| 82.5° | 767.0   | 735.1   | 1179.7  | 2260.4  | 4705.6  | 5007.1  | 5335.1  | 4469.0  | 2257.1  | 496.3  | 153.0  |
| 85°   | 340.0   | 358.8   | 533.7   | 1101.6  | 2611.4  | 2914.0  | 2872.2  | 1978.6  | 396.2   | 134.3  | 93.5   |
| 87.5° | 126.6   | 133.2   | 206.9   | 444.6   | 932.1   | 1016.8  | 914.5   | 380.8   | 51.7    | 47.3   | 28.6   |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    |



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**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2293.4 | 2293.4 | 2293.4 | 2293.4 | 2293.4 | 2293.4 | 2293.4 | 2293.4 | 2293.4 | 2293.4 | 2293.4 |
| 2.5°  | 2297.8 | 2297.8 | 2295.6 | 2265.9 | 2259.3 | 2245.0 | 2232.8 | 2241.7 | 2231.7 | 2238.3 | 2231.7 |
| 5°    | 2307.7 | 2302.2 | 2289.0 | 2253.8 | 2237.2 | 2205.3 | 2181.1 | 2186.6 | 2173.4 | 2173.4 | 2172.3 |
| 7.5°  | 2330.8 | 2319.8 | 2296.7 | 2240.6 | 2209.7 | 2163.5 | 2126.1 | 2114.0 | 2100.8 | 2085.4 | 2083.2 |
| 10°   | 2368.2 | 2352.8 | 2322.0 | 2245.0 | 2185.5 | 2123.9 | 2059.0 | 2033.7 | 2000.6 | 1976.4 | 1972.0 |
| 12.5° | 2419.9 | 2396.8 | 2355.0 | 2261.5 | 2183.3 | 2085.4 | 1998.4 | 1948.9 | 1909.3 | 1874.1 | 1866.4 |
| 15°   | 2494.8 | 2471.6 | 2422.1 | 2294.5 | 2184.4 | 2049.1 | 1934.6 | 1852.1 | 1783.9 | 1750.8 | 1751.9 |
| 17.5° | 2603.7 | 2587.2 | 2511.3 | 2363.8 | 2205.3 | 2030.4 | 1881.8 | 1750.8 | 1645.2 | 1590.2 | 1582.5 |
| 20°   | 2743.5 | 2732.5 | 2640.0 | 2455.1 | 2253.8 | 2033.7 | 1824.6 | 1643.0 | 1487.8 | 1367.9 | 1341.5 |
| 22.5° | 2906.3 | 2889.8 | 2776.5 | 2534.4 | 2291.2 | 2024.9 | 1761.8 | 1524.1 | 1290.8 | 1134.6 | 1103.8 |
| 25°   | 3087.9 | 3079.1 | 2901.9 | 2603.7 | 2295.6 | 1987.4 | 1671.6 | 1370.1 | 1077.4 | 910.1  | 883.7  |
| 27.5° | 3320.1 | 3268.4 | 3015.3 | 2641.1 | 2285.7 | 1913.7 | 1542.9 | 1158.8 | 856.2  | 740.6  | 712.0  |
| 30°   | 3574.3 | 3469.8 | 3125.3 | 2669.7 | 2237.2 | 1796.0 | 1359.1 | 914.5  | 637.2  | 534.8  | 520.5  |
| 32.5° | 3856.0 | 3699.8 | 3228.8 | 2667.5 | 2151.4 | 1614.4 | 1120.3 | 635.0  | 430.3  | 388.5  | 374.2  |
| 35°   | 4365.6 | 4100.3 | 3353.1 | 2631.2 | 2007.3 | 1398.7 | 791.2  | 413.8  | 319.1  | 293.8  | 290.5  |
| 37.5° | 5073.2 | 4623.1 | 3520.4 | 2561.9 | 1821.3 | 1147.8 | 516.1  | 282.8  | 272.9  | 274.0  | 272.9  |
| 40°   | 5653.1 | 5206.3 | 3752.6 | 2457.3 | 1586.9 | 819.8  | 309.2  | 252.0  | 257.5  | 260.8  | 261.9  |
| 42.5° | 6220.9 | 5681.7 | 4039.8 | 2326.4 | 1341.5 | 532.6  | 250.9  | 241.0  | 236.6  | 242.1  | 244.3  |
| 45°   | 6677.6 | 6096.6 | 4310.5 | 2173.4 | 1054.2 | 314.7  | 243.2  | 223.4  | 215.7  | 217.9  | 221.2  |
| 47.5° | 7043.0 | 6426.7 | 4473.4 | 1995.1 | 770.3  | 237.7  | 236.6  | 208.0  | 197.0  | 194.8  | 193.7  |
| 50°   | 7387.4 | 6709.5 | 4577.9 | 1779.5 | 490.8  | 228.9  | 219.0  | 190.4  | 177.2  | 175.0  | 175.0  |
| 52.5° | 7621.8 | 6894.4 | 4613.2 | 1524.1 | 292.7  | 223.4  | 206.9  | 176.1  | 158.5  | 161.8  | 164.0  |
| 55°   | 7850.7 | 7081.5 | 4540.5 | 1191.8 | 224.5  | 209.1  | 193.7  | 158.5  | 144.2  | 157.4  | 161.8  |
| 57.5° | 7959.7 | 7109.0 | 4376.6 | 828.7  | 217.9  | 189.3  | 175.0  | 142.0  | 131.0  | 138.7  | 138.7  |
| 60°   | 8047.7 | 7090.3 | 4147.7 | 524.9  | 212.4  | 176.1  | 159.6  | 128.8  | 115.5  | 111.1  | 107.8  |
| 62.5° | 7989.4 | 7015.5 | 3687.7 | 342.2  | 197.0  | 160.7  | 145.3  | 118.9  | 100.1  | 88.0   | 86.9   |
| 65°   | 7865.0 | 6751.4 | 2943.7 | 269.6  | 182.7  | 153.0  | 132.1  | 106.7  | 88.0   | 73.7   | 72.6   |
| 67.5° | 7498.6 | 6108.7 | 1904.9 | 223.4  | 175.0  | 147.5  | 122.2  | 99.0   | 78.1   | 63.8   | 62.7   |
| 70°   | 6620.4 | 4934.5 | 584.3  | 200.3  | 181.6  | 142.0  | 120.0  | 90.2   | 69.3   | 56.1   | 53.9   |
| 72.5° | 5234.9 | 3297.0 | 216.8  | 166.2  | 156.3  | 136.5  | 116.6  | 81.4   | 59.4   | 47.3   | 45.1   |
| 75°   | 3371.8 | 1077.4 | 183.8  | 128.8  | 133.2  | 129.9  | 107.8  | 74.8   | 50.6   | 38.5   | 37.4   |
| 77.5° | 955.2  | 225.6  | 167.3  | 94.6   | 117.7  | 125.5  | 94.6   | 62.7   | 45.1   | 33.0   | 31.9   |
| 80°   | 200.3  | 160.7  | 153.0  | 67.1   | 88.0   | 81.4   | 63.8   | 48.4   | 42.9   | 28.6   | 28.6   |
| 82.5° | 131.0  | 127.7  | 131.0  | 46.2   | 58.3   | 59.4   | 50.6   | 41.8   | 37.4   | 26.4   | 26.4   |
| 85°   | 92.4   | 116.6  | 62.7   | 33.0   | 27.5   | 25.3   | 29.7   | 36.3   | 33.0   | 22.0   | 22.0   |
| 87.5° | 31.9   | 18.7   | 13.2   | 13.2   | 12.1   | 12.1   | 14.3   | 16.5   | 17.6   | 17.6   | 16.5   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)